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INTEGRATED INFORMATION SUPPORT SYSTEM (IISS)
Volume III - Configuration Management
Part 14 - FAD Administrator's Manual

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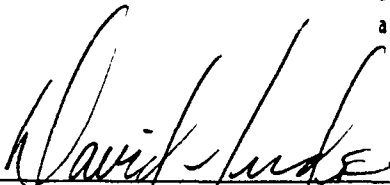
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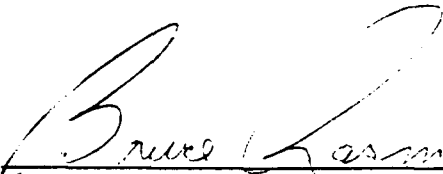
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This manual provides specific instructions for using the Fully Automated Documentation (FAD) computer program. The FAD program is used as a tool to produce text content for inclusion in Program Specification documents.

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FOREWORD

This technical report covers work performed under Air Force
Contract F33600-87-C-0464, DAPro Project. This contract is
sponsored by the Manufacturing Technology Directorate, Air Force
Systems Command, Wright-Patterson Air Force Base, Ohio. It was
administered under the technical direction of Mr. Bruce A.
Rasmussen, Branch Chief, Integration Technology Division,
Manufacturing Technology Directorate, through Mr. David L. Judson,
Project Manager. The Prime Contractor was Integration Technology
Services, Software Programs Division, of the Control Data
Corporation, Dayton, Ohio, under the direction of Mr. W. A.
Osborne. The DAPro Project Manager for Control Data Corporation
was Mr. Jimmy P. Maxwell.

The DAPro project was created to continue the development, test,
and demonstration of the Integrated Information Support System
(IISS). The IISS technology work comprises enhancements to IISS
software and the establishment and operation of IISS test bed
hardware and communications for developers and users.

The following list names the Control Data Corporation
subcontractors and their contributing activities:

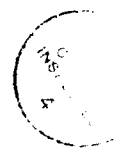| SUBCONTRACTOR	ROLE
Control Data Corporation	Responsible for the overall Common Data Model design development and implementation, IISS integration and test, and technology transfer of IISS.
D. Appleton Company	Responsible for providing software information services for the Common Data Model and IDEF1X integration methodology.
ONTEK	Responsible for defining and testing a representative integrated system base in Artificial Intelligence techniques to establish fitness for use.
Simpact Corporation	Responsible for Communication development.
Structural Dynamics Research Corporation	Responsible for User Interfaces, Virtual Terminal Interface, and Network Transaction Manager design, development, implementation, and support.
Arizona State University	Responsible for test bed operations and support.

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SECTION 1

INTRODUCTION

The purpose of this document is to describe the purpose and use of the Fully Automated Documentation System as it is used with the IISS family of software.

Accesion For		
NTIS CRA&I		☑
DTIC TAB		☐
Unannounced		☐
Justification		
By		
Distribution /		
Availability Codes		
Dist	Avail and/or Special	
A-1		

SECTION 2

HOW TO RUN THE FULLY AUTOMATED DOCUMENTATION SYSTEM

2.1 Necessary Preparations

        You must be in an account that has space available for all
the listing files. If you delete them from here you will have to
recompile any files you do not have. A sub-directory named
[.FJUNK] will be temporarily created also.

        In our special directory, known as IISS_FAD:[FADIISS.FAD],
the following will reside:

    1) DSTRIP.COM   - procedure to run strippers automatically
    2) DGROUP.EXE   - program to retrieve doc groups from CI.DAT
    3) COBDESC.EXE - program to strip descriptions from COBOL
                       programs
    4) FORDESC.EXE - program to strip descriptions from FORTRAN
                       programs
    5) CEEDESC.EXE - program to strip descriptions from 'C' strip
                       data
    6) COBINC.EXE   - program to strip include data from COBOL
                       listings
    7) CEEINC.EXE   - program to strip include data from 'C' strip
                       data
    8) DOFAD.EXE   - program that creates the five reports of the
                       final document

2.2 How To Run

        We must execute all of the following with our default
directory set to IISS_FAD:[FADIISS.FAD].

        To guarantee that you are set up correctly within the
Common Data Dictionary, the following CDD command must be
executed, however, it will also be done by the DSTRIP.COM
command file, so it need not actually be typed in by hand.
After that, the command file program which does all of our
selecting and compiling can be started up. Remember to have a
current version of CI.DAT indexed file within the [FADDIISS.FAD]
directory. What you have to type in is shown below in CAPITAL
letters while commentary is in square brackets.

```
$ DELETE *.LIS;*        [to save space]
$ DELETE *.OBJ;*        [to save space]

[done by dstrip]:
$ DEFINE CDD$DEFAULT CDD$TOP.FAD       [need only be done once]

$ @DSTRIP
Want to Create New Strip Files [Y/N] : Y  [always answered Yes]
Want to Compile All Programs [Y/N] :  Y  [always Yes unless this
                                          is second time through]
Enter Documentation Group:  [enter names of groups; hit return
                                          when finished]

[It will then go off and strip all data from correct files]

Exit
 Time-of-Day
$ RUN DOFAD

[It will then produce all FULLY AUTOMATED DOCUMENTATION reports]

$ @CLEAN
Name of File for final Fad output:  [enter name of file for data
                                          to end up in]
$ CHART
args:  [hit return]

Input filename:  CHARTIN.DAT  [always this name!]
Invert tree (y or n): N
Edit top level of tree (y or n): N
Divide chart into pages (y or n): Y
Page breaks for multiply referenced nodes (y or n): N
Page Width: 63
Page Depth: 47
Output filename: sys.CHT  [the name you provided in @CLEAN with
                                          a .CHT after it]

$
```

That is it! You will want to note that there is often a
considerable amount of time between each step.

Your final output is in the file you requested. It is able to
be placed into WPS or can be printed out.

SECTION 3

HOW FAD SYSTEM WORKS

3.1   Input Files

The CI.DAT file contains the name, extension, subdirectory, and documentation group of each and every file in our IISS software set.   Certain files are grouped together under a common banner, called a documentation group.   When we specify this group name, each file within this group is individually selected and a copy is placed in our subdirectory [.FJUNK] (don't worry, we will delete this when we are finished).   I do this so that we will have all the files we wish to work with in one place.

3.2   Listing Files

For each COBOL and FORTRAN file, as we look at them, we must first compile them.   We then place the listing file in our directory from where we are running.   This is why the objects and listing files should be deleted before we start so that we don't run out of room eventually.   These are to be run over by the FAD strippers in order to pick up various pieces of information.   Programs written in "C" need not be compiled because we do our stripping right from the source file.

3.3   Strippers and their Output

There are strippers written specifically for each language.   Because DSTRIP.COM looks at the extension of each file as we go along, we use the correct one on the listing or source files.   The strippers place their output in a file called MODULE.DOC which will later be read by the Dofad program.   There are also strippers which pull off 'include' file information as well as program descriptions which are written directly inside the software code itself.   These stripper programs are also language specific, yet write to common description files, such as DESC.DOC and INCPURP.DAT, the file for include purposes.

3.4   Dofad Program

The Dofad program produces a series of output files whose first letter is 'F' which will be found in our directory.   The CLEAN.COM command files merges all these files along with title pages to form a coherent document.